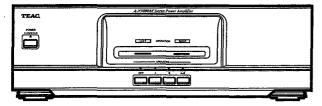


TEAC

AV SURROUND AMP



POWER AMP

A-V3000P/A-V3000M

SERVICE MANUAL

NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ♠ A Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [] mark can be used only with the version designated.
 [GE]:GENERAL EXPORT [E]:EUROPE [UK]:U. K. [A]:AUSTRALIA

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TECHNICAL SPECIFICATION

A-V3000P

■ PREAMPLIFIER (when Surround is "OFF")

Output Voltage

: 2ch × 1V

• T. H. D

1KHz/1V

: 0.01%

S/N Ratio

PHONO(IHF-A) : 70dB TUNER, TAPE(IHF-A): 95dB CD/AUX

· Sensitivity and Impedance

PHONO

: 2.6mV/47K Ω

TUNER/TAPE

: 180mV/47K Ω

CD/AUX

: 180mV/47K Ω

· Frequency Response

PHONO(RIAA STANDARD CURVE)

: 30Hz~15KHz(±0.8dB)

TUNER/TAPE

: 10Hz~150KHz(-3dB)

CD/AUX

: 10Hz~150KHz(-3dB)

POWER AMPLIFIER(when prologic is "ON")

Continuous output (1KHz, 8 Ω)

Center 50W × 1ch

: 0.5%

Rear 50W × 2ch

: 0.5%

• Frequency Response

Center

: 20Hz~80KHz(-3dB)

Reaur

: 100Hz~7KHz (-3dB)

S/N Ration (ccIR ARM)

Center

: 75dB

Rear

: 70dB

General

· POWER consumption :285w

POWER supply

: AC230V, 50Hz

• Dimension (W×H×D): 430×136×311mm

Weight

: 7.5Kg

A-V3000M

AMPLIFIER

· Continuous output power

20~20KHz

: $2ch \times 100W(8 \Omega)$

• T. H. D

: 0.02%

S/N Ratio

IHF-A NETWORK

: 120dB

· Sensitivity and Impedance

: 1V/47K Ω

Frequency Response

Incase that the output is/1W

: 10Hz~85KHz(-3dB)

• Channel separtion : 80dB

■ General

• POWER Consumption: 365W

POWER Supply

: AC230V, 50Hz

Dimension(W×H×D): 430×140×322mm

· Weight

: 9Kg

IC701 [ANAM1035A (NEC : μ PD75104GF) μ -COM]

NO.	SYMBOL	I/O	DESCRIPTION
1	Key input	I/O	Key input LDP PORT.
2	Key input	I/O	Key input VCR PORT
3	Key COM	I/O	N. C
4	Key COM	I/O	Key output PORT
5	Key COM	I/O	Key output PORT
6	VR. LED	I/O	Key output PORT
7	VR. DOWN	I/O	VOLUME DOWN Contrel
8	VR. UP	I/O	VOLUME UP Contrel
9, 10	P06, P07	I/O	N. C
11	Remocon in	I/O	Remote contrel input port.
12	System in	I/O	Remote contrel input port
13	System out	I/O	Remote contrel outpt port
14	P13	I/O	N. C
15	T/T stort/out	I/O	Turn Table start/stop
16	P15	I/O	N. C
17	-20dB	I/O	-20dB mute port
18	AM	I/O	SIGNAL MUTE PORT
19	Back up	I/O	BACK UP PORT
20	TEST	1	DIGITAL GND PORT
21	18	I/O	N. C
22	28	I/O	N. C
23	RESET	I/O	RESET INPUT PORT
24	X-in	ı	OSC INPUT PORT
25	X-out	0	OSC OUTPUT PORT
26	Vss/GND	ı	DIGITAL GND PORT
27	PH	I/O	PHONO LED Contral
28	TU	I/O	TUNER LED Contral
29	T1 .	I/O	TAPE 1 LED Contral
30	T2	I/O	TAPE 2 LED Contral

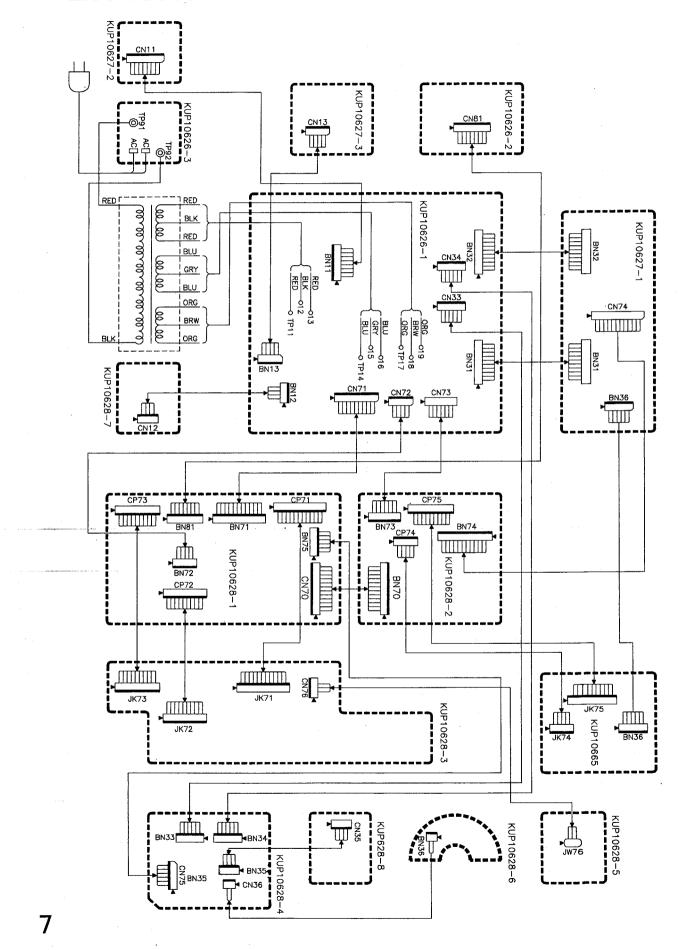
NO.	SYMBOL	I/O	DESCRIPTION
31	CD	I/O	CD LED Contral
32	VCR	1/0	VCR LED Contral
33	LDP	I/O	LDP LED Contral
34	AUX	I/O	AUX LED Contral
35	SP	I/O	SPEAKER ON/OFF
36	P. M	I/O	OUTPUT MUTE PORT
37~42	P42~P47	I/O	N. C
43	P-OUT	I/O	POWER ON/OFF
44	Al	I/O	AI ON/OFF
45	STB	I/O	
46	CLK	I/O	INPUT SELECTION I.C (TC9/63N)
47	DATA	I/O	CONTROL PORT
48	VASS	1	DIGITAL GND PORT
49	VAREF	I	VCC(+5)
50~53	P60~P63	I/O	N. C
54	Prote-in	1/0	PROTECTOR INPUT PORT
55	VR-Postition	I/O	VOLUME POSLTION PORT
56~57	P66~P67	I/O	N. C
58	Vcc	ı	VCC(+5V)
59	POWER	I/O	POWER PHONO KEY INPUT PORT
60	TUNER, SP	I/O	TUNER SPKEY INPUT PORT
61	T1	I/O	TAPE1 KEY INPUT PORT
62	T2, Al	I/O	TAPE AI KEY INPUT PORT
63	CD	I/O	C/D KEY INPUT PORT

IC75[BV1ANAM1078A (NEC: μ D75P104GF) μ -COM]

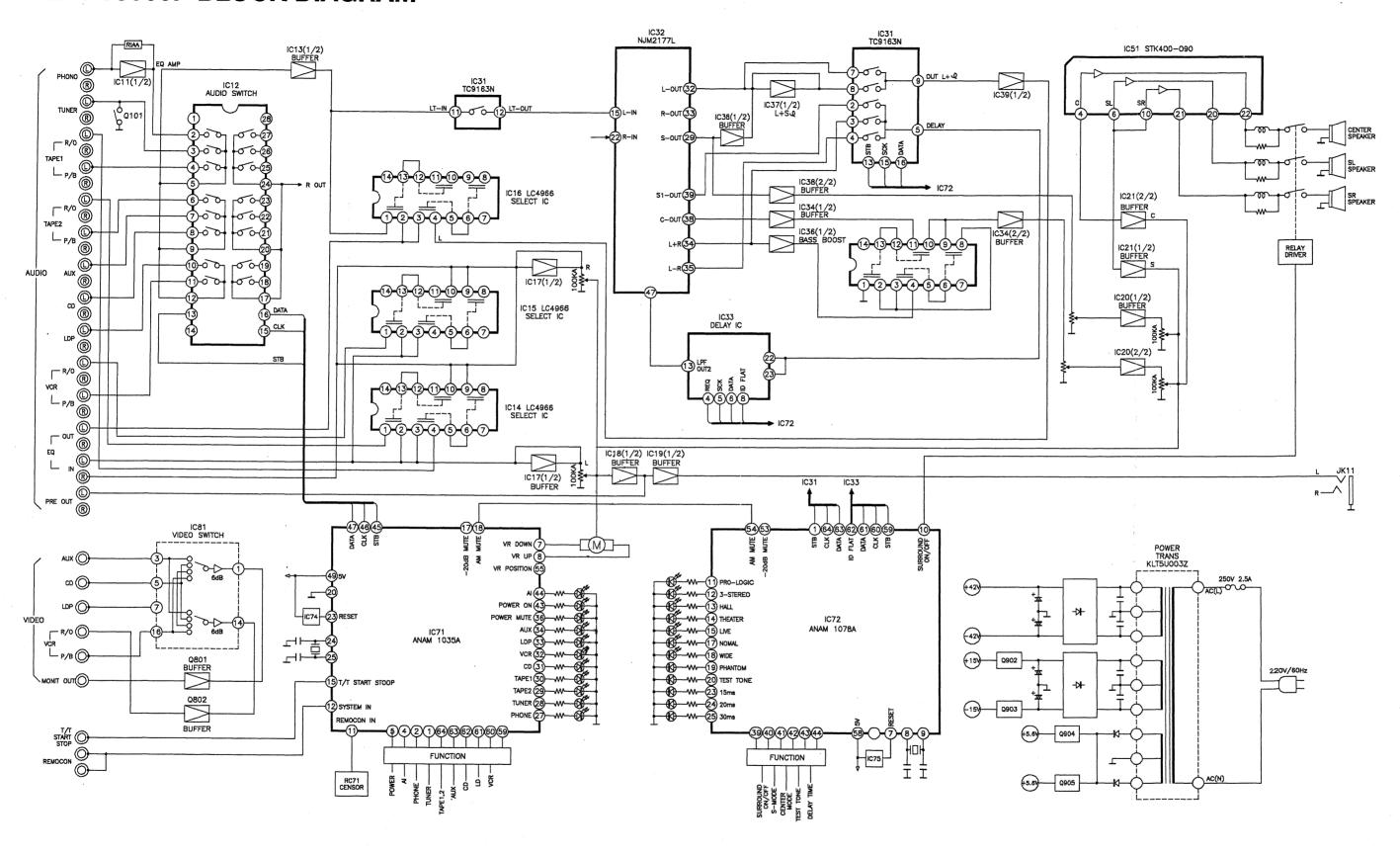
NO.	SYMBOL	I/O	DESCRIPTION
1	ST1	I/O	TC9163N Control PORT
2~6	P40, P50~53	1/0	N. C
7	RESET	. 1	RESET INPUT PORT
8	X2	0	OSC OUTPUT PORT
9	X1	I	OSC INPUT PORT
10	SURROUND	I/O	SURROUND ON/OFF
11	PRO-LOGIC	I/O	PROLOGIC LED PORT
12	3 STEREO	I/O	3 STEREO LED PORT
13	HALL	I/O	HALL LED PORT
14	THEATER	I/O	THEATER LED PORT
15	LIVE	I/O	LIVE LED PORT
16	Center	I/O	CENTER ON/OFF
17	NORMAL	1/0	NORMAL LED PORT
18	WIDE	I/O	WIDE LED PORT
19	PHANTOIU	I/O	PHANTOM LED PORT
20	А	I/O	Signal E A B selection H X X
21	В	I/O	NOISE L L L L NOISE C L L H
22	E	I/O	NOISE R L H L NOISE S L H H
23	S	I/O	DELAYTIME LED PORT
24	M	I/O	DELAYTIME LED PORT
25	L	1/0	DELAYTIME LED PORT
26	Vss	ı	DIGLTAL GND PORT
27	P13, P12	ı	N. C
28	P13, P12	ı	N. C
29	PROTECTOR	1 .	PROTECTOR INPUT PORT
30	REMOCON	-	RETECTOR INPUT PORT
31~38		ı	N. C
39~40	KEY, COM	I/O	KEY OUTPUT PORT
41~44	KEY	I/O	KEY INPUT PORT

NO.	SYMBOL	I/O	DESCRIPTION
45~53		I/O	N. C
54	AM	1/0	SIGNAL MUTE
55	PM	I/O	OUTPUT MUTE
56, 57		I/O	N. C
58	V _{DD}		VCC(+5V)
59	REQ	I/O	
60	CLK	I/O	Delay IC (NJU9701) Control.
61	DATA	1/0	Boldy to (Nosove I) control
62	IDFLAT	1/0	
63	DATA		T00400N 0 4 1 1 1 1 1 1
64	CLK		TC9163N Control port

■ A-V3000P WIRING DIAGRAM

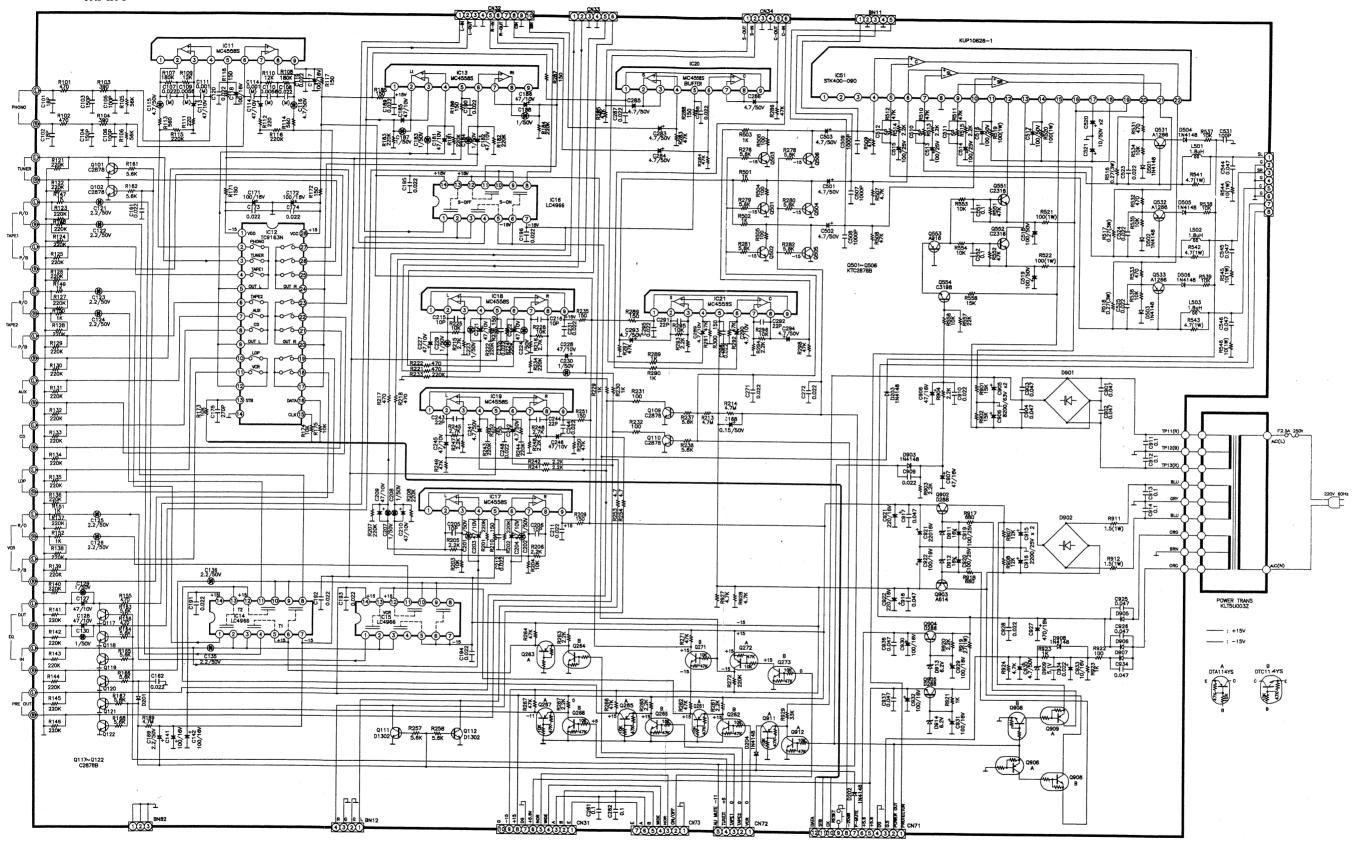


■ A-V3000P BLOCK DIAGRAM

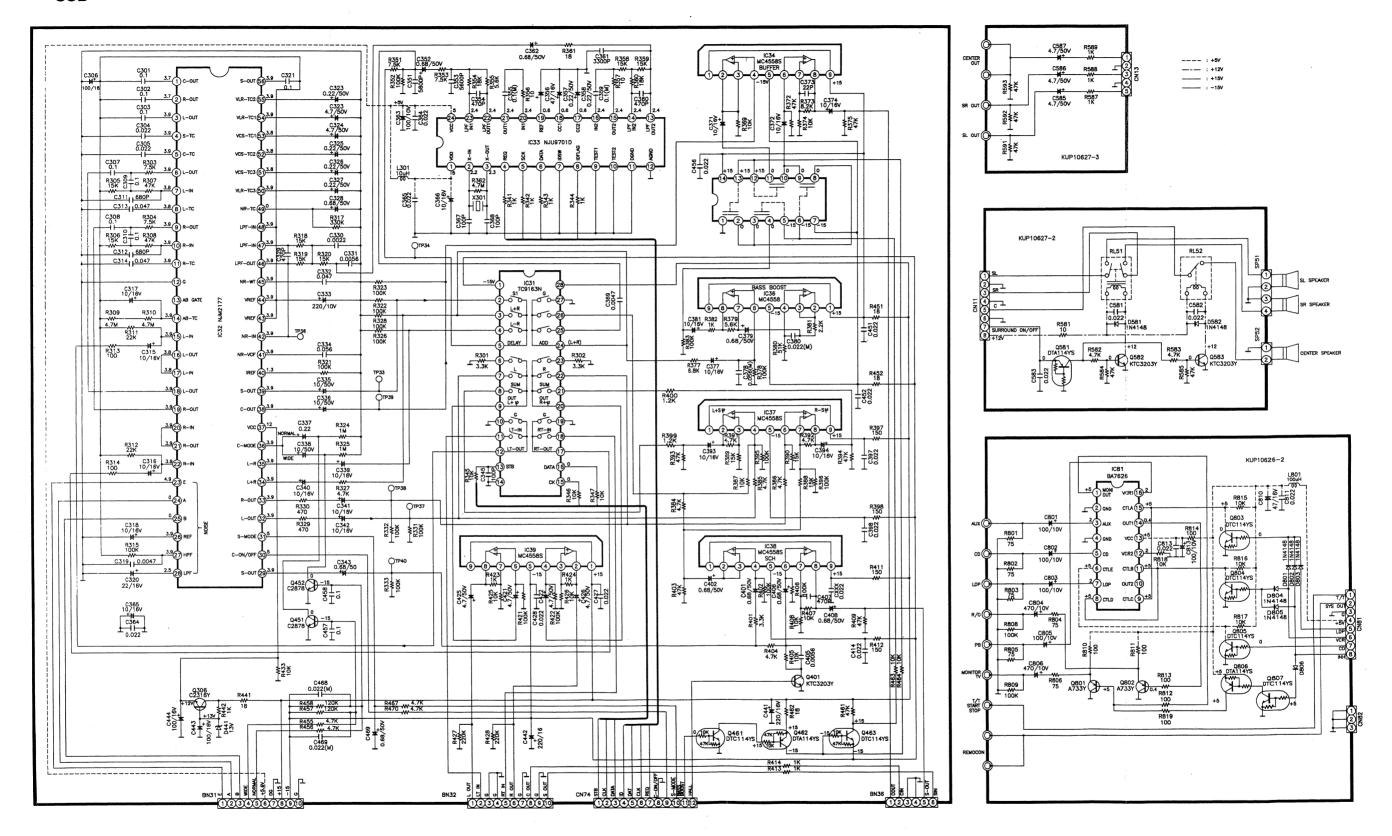


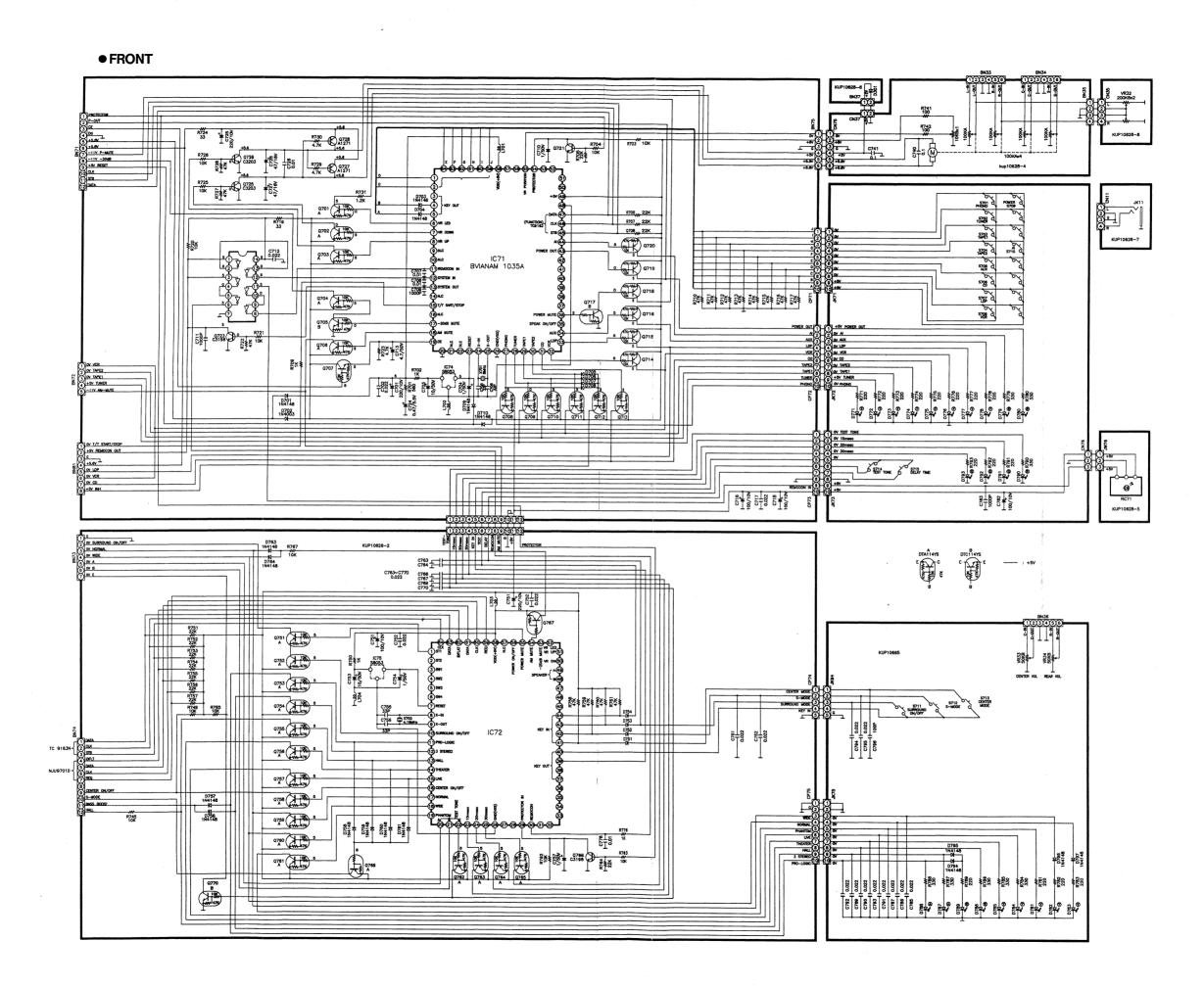
■ A-V3000P SCHEMATIC DIAGRAM





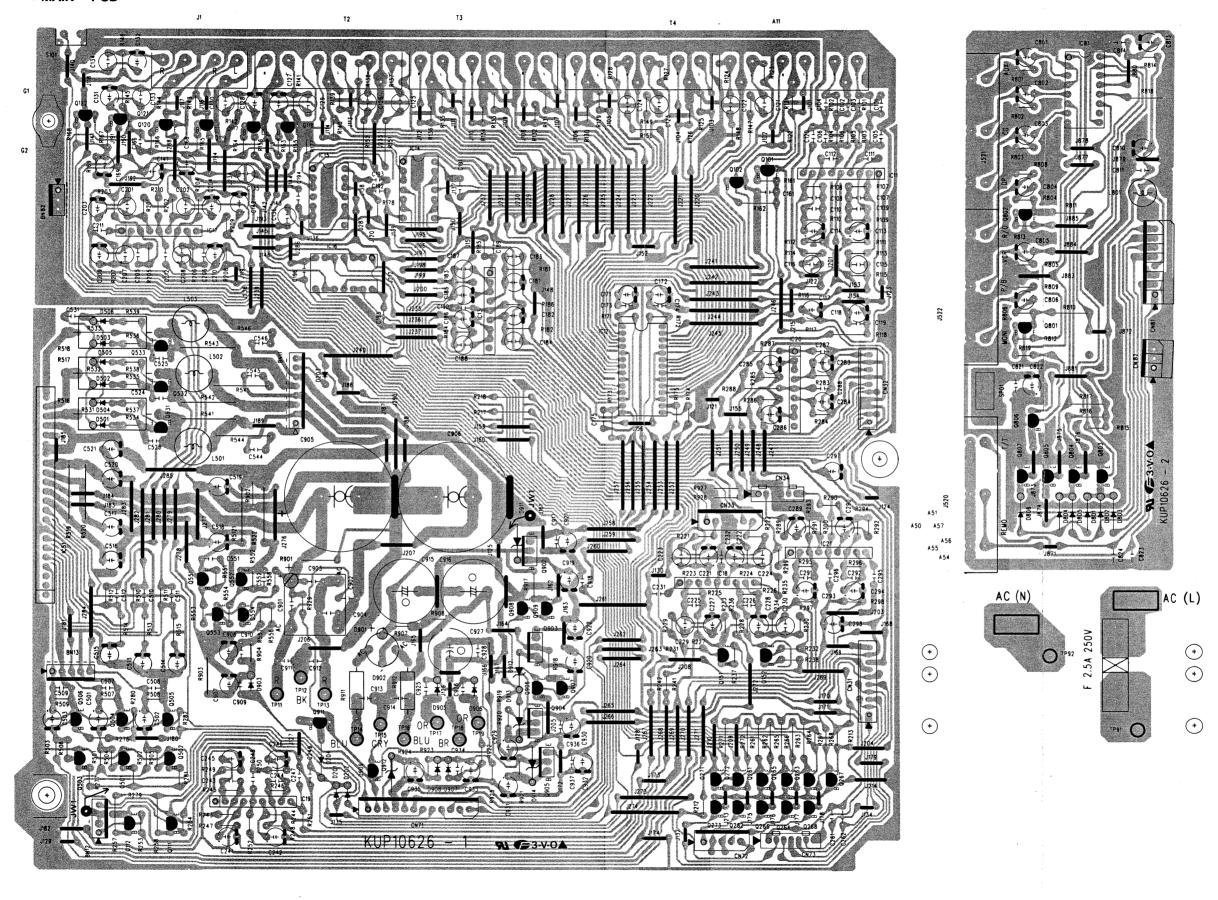
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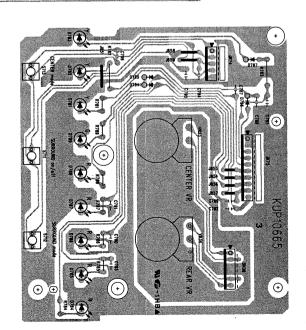


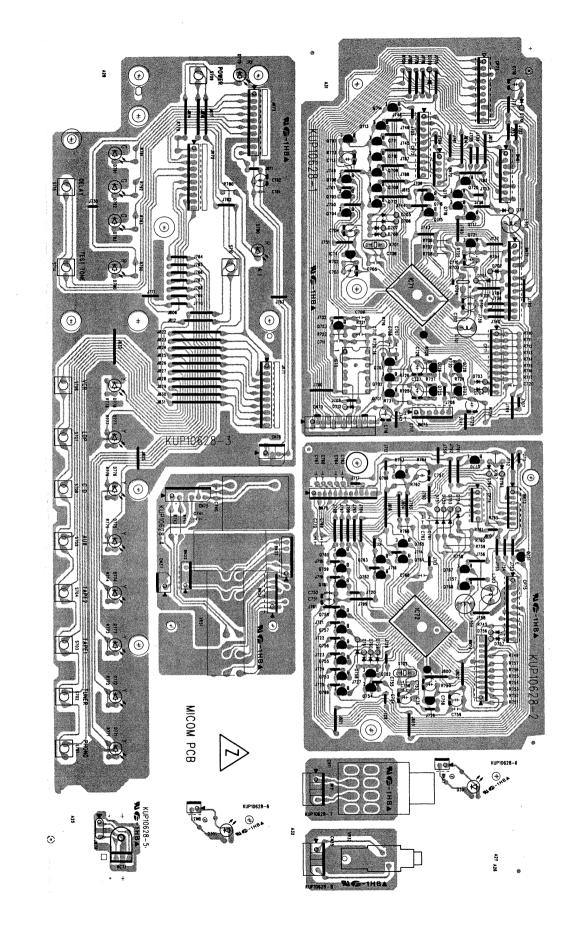


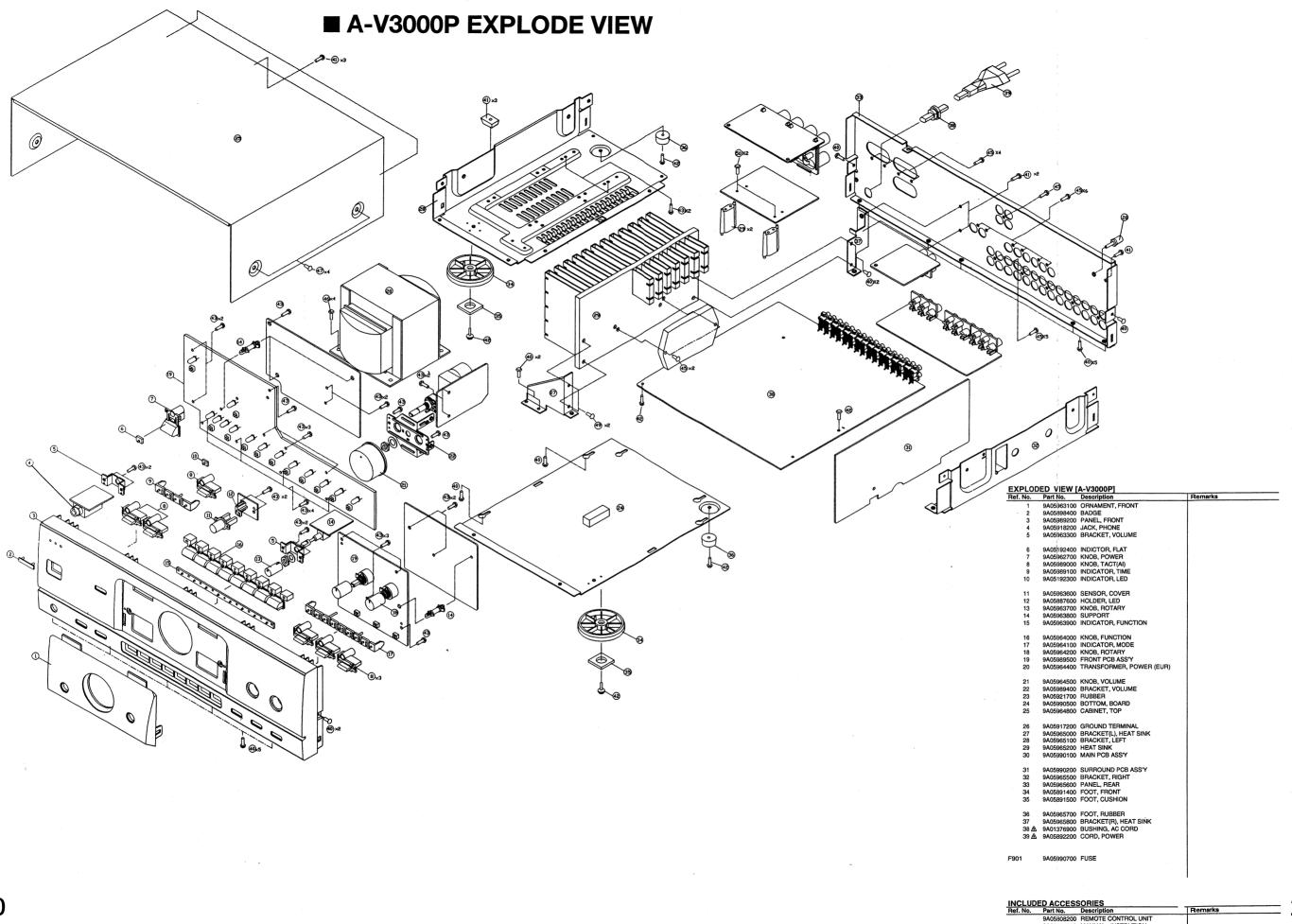
■ A-V3000P PRINTED CIRCULT BOARDS

● MAIN PCB

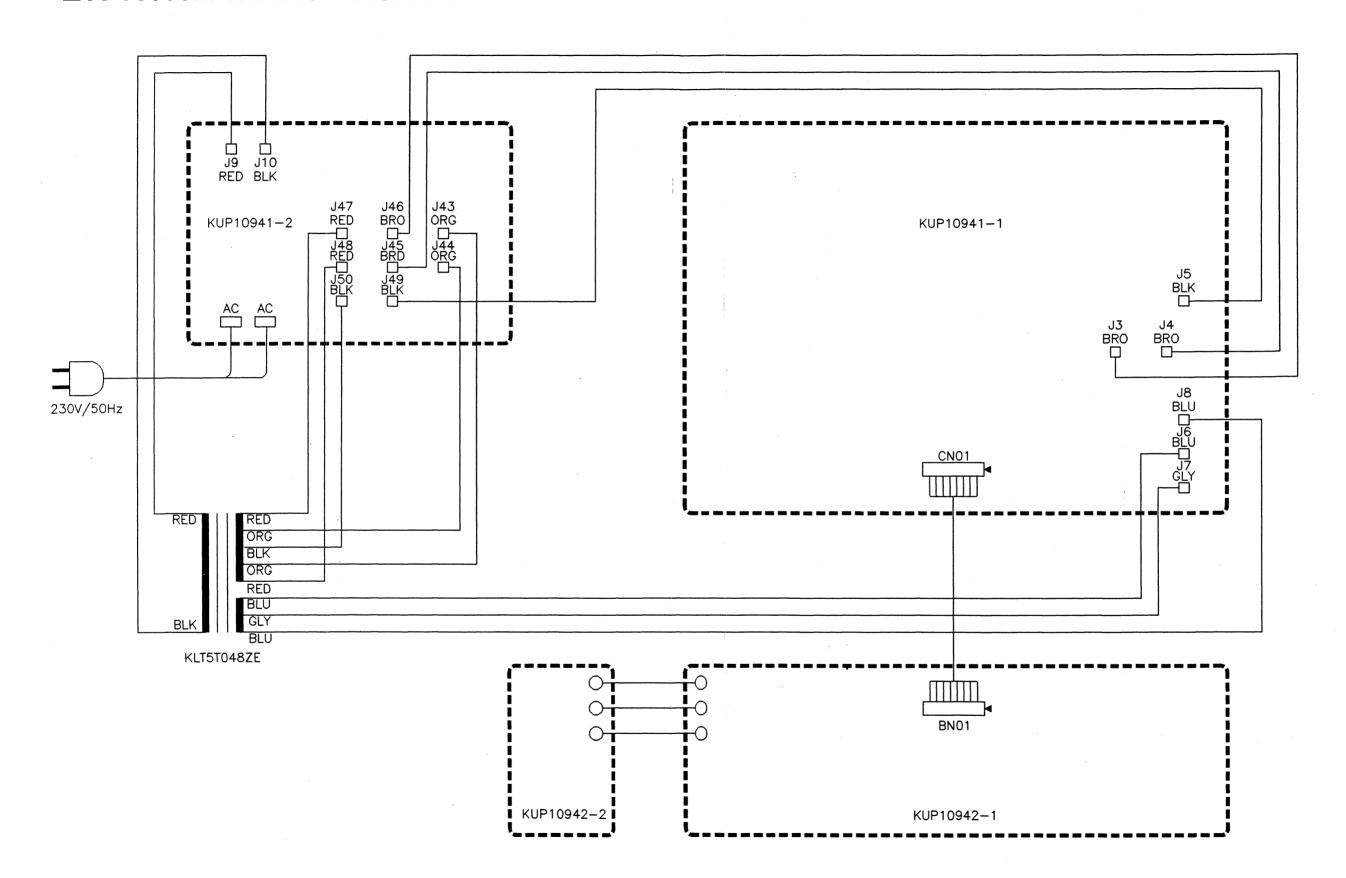




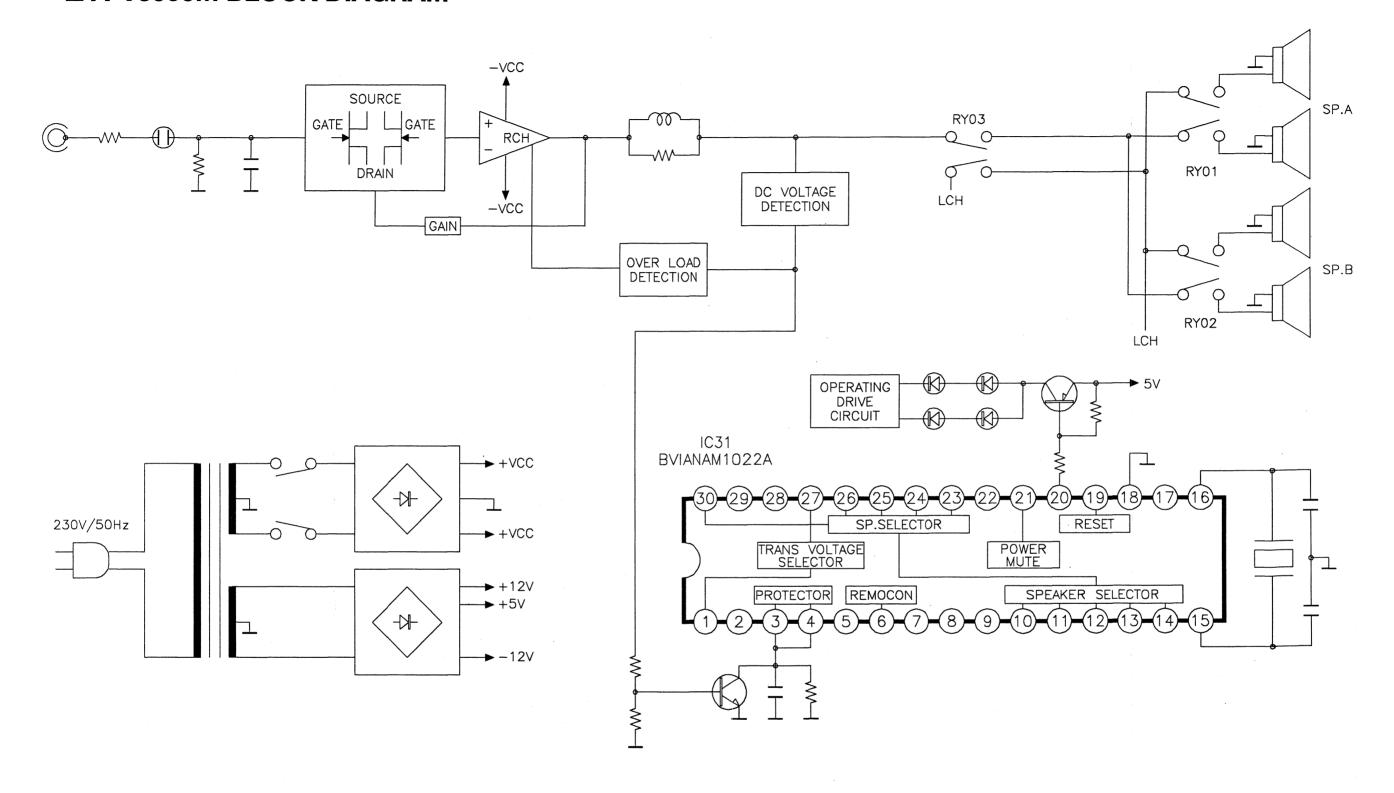




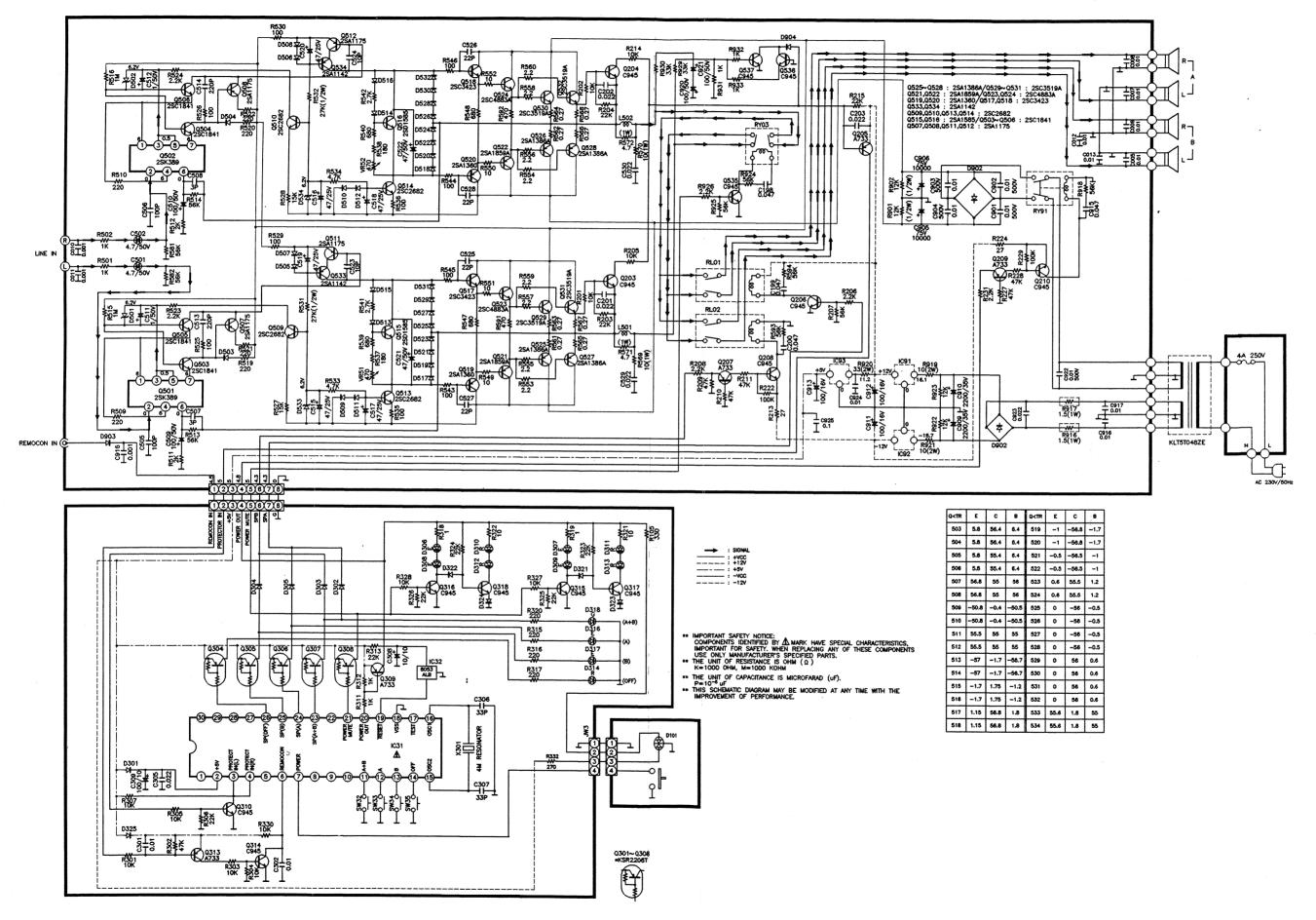
■ A-V3000M WIRING DIAGRAM



■ A-V3000M BLOCK DIAGRAM

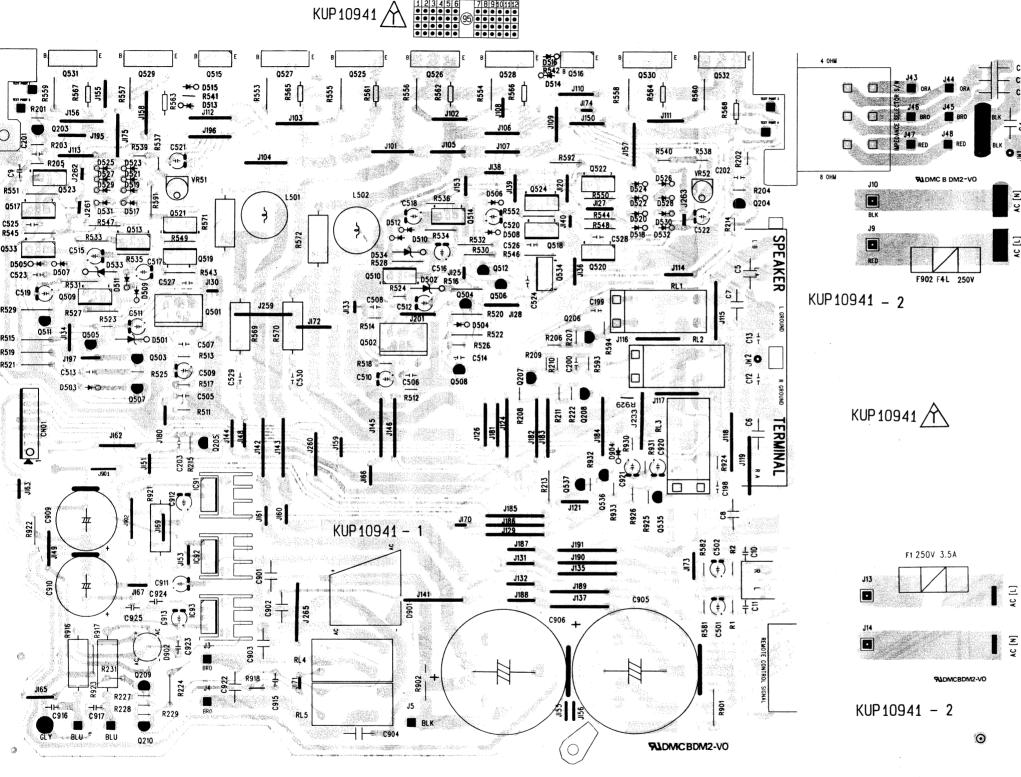


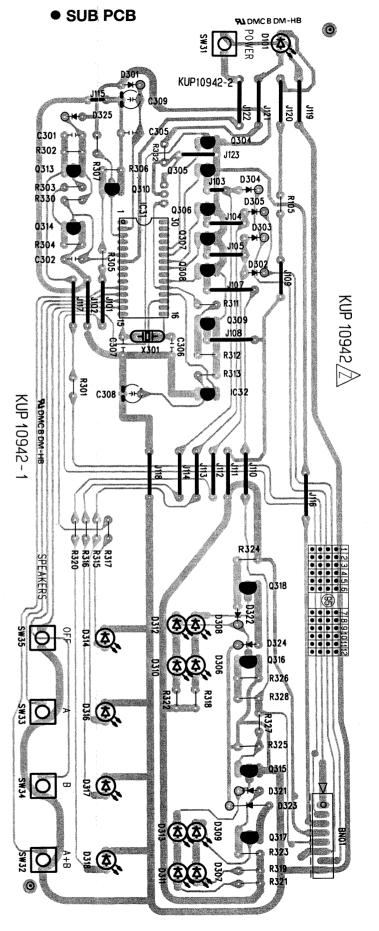
■ A-V3000M SCHEMATIC DIAGRAM

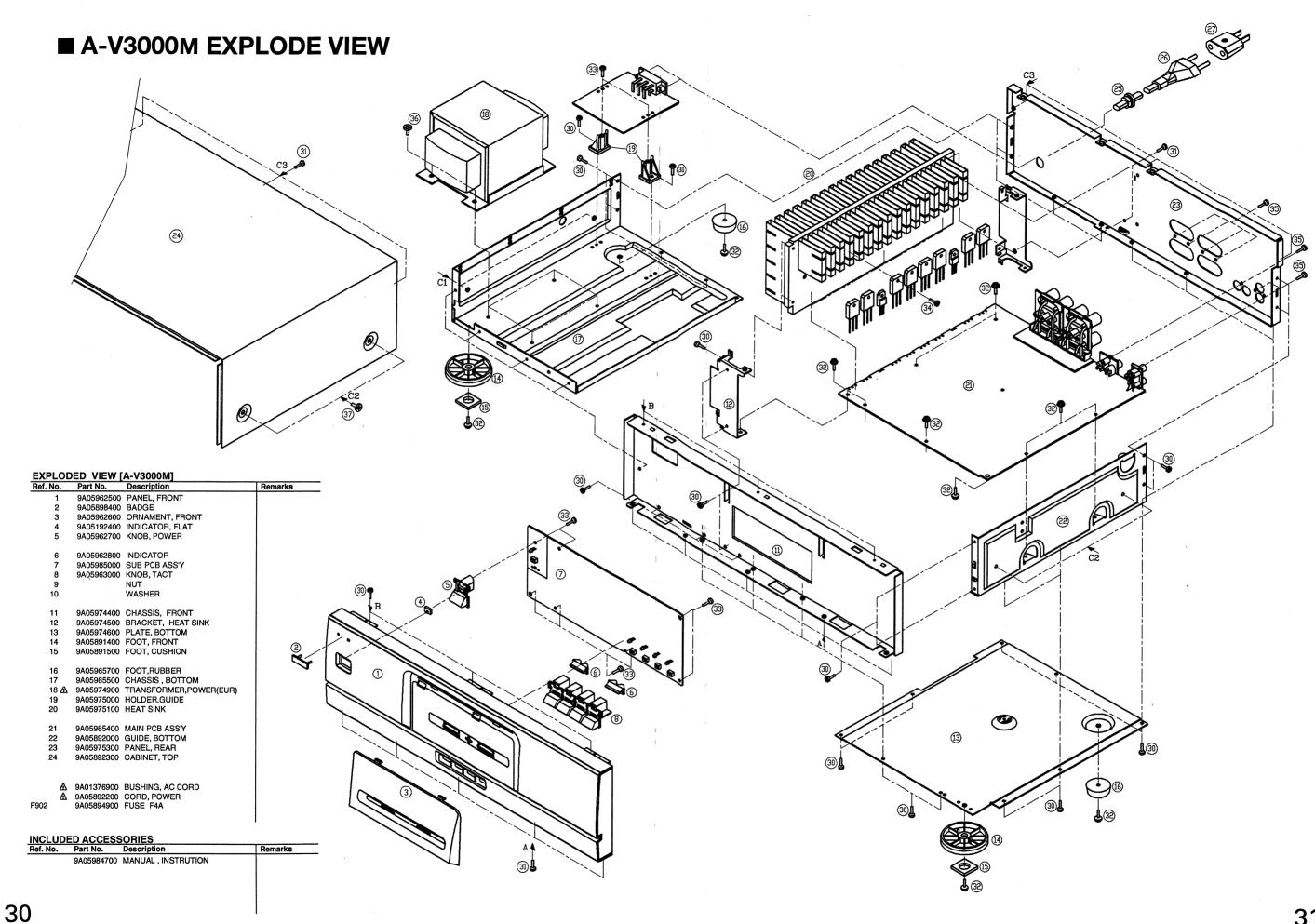


■ A-V3000M PRINTED CIRCULT BOARDS

• MAIN PCB







ELECTRICAL PARTS LIST

A-V3000P

	CB ASSY
Ref. No.	
	9A05990100 MAIN PCB ASS'Y
	9A05328200 HOLDER, FUSE
	9A06026700 PCB, MAIN
	9A05916800 JACK, BOARD 9A05832000 JACK INPUT
	9A03632000 JACK INFUT
	9A04876000 JACK BOARD
	9A06012300 JACK, VCR
•	9A06012400 TERMINAL, LUG
CN31,32	9A05970400 WAFER, 10P
CN33	9A05329600 WAFER MOLEX 5267-06A
CN34	9A05329700 WAFER MOLEX53014-0610
CN71	9A05967800 WAFER
CN72	9A05894700 WAFER(5P)
CN73	9A05356500 WAFER 07GA19ZM
CN81	9A05973000 WAFER,8P
CN82	9A05967900 WAFER
C905,906	⚠ 9A01384800 C., ELEC. 8200UF/63V
C915,916	⚠ 9A01402000 C,ELEC 2200UF/25V
C927	⚠ 9A06015100 C,ELEC 1000UF/16V
D201-203	9A01390500 DIODE, 1N4148MT
D004	0404000000 DIODE 1N4140T
D204	9A01390600 DIODE, 1N4148T
D501-506 D801-806	9A01390500 DIODE, 1N4148MT 9A01390600 DIODE, 1N4148T
D901	9A05970500 DIODE, PBPC1003F
D902	9A05987000 DIODE , BRIDGE , W02GF
D302	SASSOTOS BIODE, BIIIDAE, WOZAI
D903	9A01390500 DIODE, 1N4148MT
D905-907	9A05194600 DIODE, 1N4003SRT
D908	9A01390500 DIODE, 1N4148MT
D909	▲ 9A05894800 DIODE, ZENER
D911,912	▲ 9A05970800 DIODE, UZ16BMT
D913,914	⚠ 9A05902300 DIODE, ZENER,6.2Z
IC11	9A05195800 IC, MC4558S
IC12	9A05971100 IC., LC4966
IC13	9A05195800 IC, MC4558S
IC14-16	9A05971200 IC, LC4966
1017.01	OAGE10E000 IC MOJEEOS
IC17-21 IC51	9A05195800 IC, MC4558S 9A05971300 IC., STK400-090
IC81	9A05973600 IC, BA7626
L501-503	9A04875100 COIL
L801	9A03746700 COIL
· 	
Q101,102	9A05896000 TR., KTC2878BT
Q111,112	9A05896000 TR., KTC2878BT
Q117-122 Q151,152	9A05896000 TR., KTC2878BT 9A05896000 TR., KTC2878BT
Q261	9A05196400 TR, DTA114YST
QLU.	0,100,100,100
Q262	9A05196500 TR, DTC114YST
Q263	9A05196400 TR, DTA114YST
Q264	9A05196500 TR, DTC114YST
Q265	9A05196400 TR, DTA114YST
Q266	9A05196500 TR, DTC114YST
Q267	9A05196400 TR, DTA114YST
Q268,271	9A05196500 TR, DTC114YST
Q272	9A05196400 TR, DTA114YST
Q273	9A05196500 TR, DTC114YST
Q501,506	9A05896000 TR., KTC2878BT
Q531-533	9A05895900 TR., A1266
Q551,552	9A05196800 TR, KSC2316YT
Q553	9A05895900 TR., A1266
Q554	9A05892800 TR., C3198
Q801,802	9A01387400 TR, KSA733CYT

MAIN PCB ASSY

Ref. No.	Part No.	Description
Q803-805	9A05196500	TR, DTC114YST
Q806	9A05196400	TR, DTA114YST
Q807	9A05196500	TR, DTC114YST
Q902	9A01388300	TR., KVTKSD288Y
Q903	9A01388400	TR, DTA114YST
Q904,905	9A01388300	TR., KVTKSD288Y
Q906	9A05196400	TR, DTA114YST
Q907,908	9A05196500	TR, DTC114YST
Q909,911	9A05196400	TR, DTA114YST
Q912	9A05196500	TR, DTC114YST
R516-518	9A06017100	R., CEMENT 0.27-OHM,3W
R519-522	9A05971700	R., 100-HM,1W
R541-543	9A05896400	R., 4.7-OHM,1W
R544-546	9A05338000	R, METAL 1ANJ100H
R911,912	9A05971800	R., 1.5-OHM,1W
R919	9A05907900	R., 27-OHM,1W
SP01	9A06017500	SPRING, EARTH
S101	9A04882400	SW, TACT

ef. No.	Part No.	Description
	9A05990200	SURROUND PCB ASS'Y
	9A06028200	PCB, SURRPUND
131,32	9A05972000	WAFER, 5P
111	9A05973000	WAFER, 8P
N13	9A05973100	WAFER, 5P
136	9A05329600	WAFER MOLEX 5267-06A
N74		WAFER MOLEX 53014-1210
41		DIODE, ZENER,13V
581,582	9A01390500	DIODE, 1N4148MT
31 -	9A05971100	IC., TC9163N
32	9A05973300	IC., NJM2177L
33		IC., NJU9702D
34		IC, MC4558S
35	9A05971200	IC., LC4966
36,37	9A05195800	IC, MC4558S
38,39	9A05195800	IC, MC4558S
(51	9A05832000	JACK IN/PUT
01	9A03746700	COIL
401	9A05197400	TR., KTC3203YT
141	9A05196800	TR, KSC2316YT
51,452		TR, KTC2878BT
461	9A05196500	TR, DTC114YST
462		TR, DTA114YST
63	9A05196500	TR, DTC114YST
81	9A05196400	TR, DTA114YST
582,583		TR, KTC3203YT
L51	9A01423700	RELAY
_52	9A05987100	RELAY
251	9A06017900	TERMINAL, SPEAKER
P52	9A05974200	TERMINAL, SP,CENTER
301	9A06018000	RESONATOR, CERAMIC

M-CON PCB ASSY

M-CON PCB ASSY				
Ref. No.	Part No.	Description		
		M-COM PCB ASS'Y		
	9A05326900	·SUPPORT, LED		
		PCB, M-COM		
CN11,35	9A05967700			
CN37	9A05328900	WAFER MOLEX 5267-02A		
CN70		WAFER, ANGLE		
CN75		WAFER MOLEX 5267-06A		
CN76	9A05967900			
CP71	9A05991400			
CP72	9A05991500	IEMMINAL		
CP73	9A05991500	TEDMINAL		
CP74	9A05991600			
CP75	9A05991500			
D301	9A05968000			
D701		DIODE, 1N4148T		
D702	9A05194600	DIODE, 1N4003SRT		
D703,704	9A01390500	DIODE, 1N4148MT		
D705,706	9A01390600	DIODE, 1N4148T		
D707,708	9A01390500	DIODE, 1N4148MT		
D709	9A01390600	DIODE, 1N4148T		
D710-712		DIODE, 1N4148MT		
D751-753		DIODE, 1N4148T		
D754-757		DIODE, 1N4148MT		
D758		DIODE, 1N4148T		
D759-764	9A01390500	DIODE, 1N4148MT		
200	0.4.0.000000	LED VOENTONE		
D771-778		LED, YCF02TO85		
D779		LED, SPR39MVW3 LED, 342VCF02T085 LED		
D780,790		LED, 342VCF02T065 LED LED, 342MCF02T085 GRN		
D791-793 IC71		IC., ANAM1035A		
1071	9405906100	IC., ANAMITOSSA		
IC72	9405968200	IC., ANAM1078A		
IC73		IC, NJU74HC14D		
IC74.75		IC, RE5VA30CC		
JK11		JACK HTJ064-05BG		
JK11	9A05918200	JACK, PHONE		
JK72,73	9A05968400	JACK		
L701-704	9A05968600			
Q701-703		TR, DTA114YST		
Q704		TR, DTC114YST		
Q705,706	9A05196400	TR, DTA114YST		
		TD DT044 (VOT		
Q707		TR, DTC114YST		
Q708-716		TR, DTA114YST		
Q717		TR, DTC114YST		
Q718-720		TR, DTA114YST		
Q721,723	9A05892800	IH., 03190		
Q725,726	9405197400	TR, KTC3203YT		
Q727,728		TR, KTA1271YT		
Q751-755		TR, DTA114YST		
Q756-765		TR, DTA114YST		
Q766	9A05892800	-		
Q767-769		TR, DTA114YST		
Q770	9A05196500	TR, DTC114YST		
RC71		SENSOR, REMOCON		
S701-710	9A04882500	-		
S714,715	9A04882500	SW, TACT		
VD04	0400044000	MOTOR VP/100KA*4 10KP*1		
VR31		MOTOR, VR(100KA*4.10KB*1)		
VR32	9A05968900	CRYSTAL, 8MHZ		
X701 X702	9A05969100 9A04874200	· · · · · · · · · · · · · · · · · · ·		
AI UZ	UNUTUI 4200	J		

FRONT PCB ASSY

Ref. No.	Part No.	Description
	9A05989500	FRONT PCB ASS'Y
	9A06023600	PCB,FRONT
D781-783	9A05890300	LED, YCF02TO85
D784-788	9A05195000	LED,342VCF02T085 LED
D789	9A05194900	LED,342MCF02T085 GRN
D794-797	9A01390500	DIODE,1N4148MT
JK74	9A05968500	JACK
JK75	9A05968400	JACK
VR33	9A05969000	VR.,50KB
VR34	9A05969000	VR50KB

A-V3000M

MAIN PCB ASSY

MAIN PCB ASSY					
Ref. No.	Part No. Description				
	9A05985400 MAIN PCB ASS'Y				
	9A05987500 PCB , MAIN				
	9A05976100 PCB, MAIN 9A05986500 SW , SLIDE				
CN01	9A05986700 WAFER				
C002	9A05916800 JACK, BOARD				
C003-008					
C901-904					
C905,906					
C909,910	⚠ 9A01402000 C,ELEC 2200UF/25V				
C920/921	⚠ 9A05986900 C,ELEC. 100UF/50V				
C922	▲ 9A05894500 C.,0.01UF.500V				
D501,502	♠ 9A05902300 DIODE,ZENER,6.2Z				
D503-504					
D533,534	△ 9A05902300 DIODE,ZENER,6.2Z				
D901	▲ 9A05987900 DIODE, BRIDGE, BPC2504WF				
D902	⚠ 9A05987000 DIODE, BRIDGE, W02GF				
D904	9A01390500 DIODE,1N4148MT				
F001	9A05328200 HOLDER, FUSE				
IC91	△ 9A05196000 IC,MC7812C				
IC92	♠ 9A05988200 IC.,MC7912C				
IC93	♠ 9A05341500 IC, MC7805C				
L501,502	⚠ 9A05895800 COIL				
Q203,204	9A01388800 TR,KSC945CYT				
Q205	9A01387400 TR,KSA733CYT				
Q206	9A01388800 TR,KSC945CYT				
Q207 .	9A01387400 TR,KSA733CYT				
Q208	9A01388800 TR,KSC945CYT				
Q209	9A01387400 TR,KSA733CYT				
Q210	9A01388800 TR,KSC945CYT				
Q503-506	9A05976900 TR.,2SC1841				
Q507,508	9A05977000 TR.,2SA1175				
Q509,510	9A05977100 TR.,2SC2682				
Q511,512	9A05977000 TR.,2SA1175				
Q513,514	9A05977100 TR.,2SC2682				
Q515,516	9A05977200 TR.,2SD1585				
Q517,518	9A05977300 TR.,2SC3423				
Q519,520	9A05977400 TR.,2SA1360				
Q521,522	9A05977500 TR.,2SA1859A				
Q523,524	9A05977600 TR.,2SC4883A				
Q525-528	⚠ 9A05977700 TR.,2SA1386A				
Q529-532	⚠ 9A05987800 TR.,2SC3519A				
Q533,534	9A05977900 TR.,2SA1142				
2535-537	9A01388800 TR,KSC945CYT				
RY01-03	⚠ 9A01423700 RELAY				
RY04,05	⚠ 9A05987100 RELAY				
7531,532	△ 9A05978400 R.,27K-OHM,1W				
R553-560	△ 9A05978800 R.,2.2-OHM				
R561-568	⚠ 9A05896300 R.,0.22-OHM,5W				
R569,570	▲ 9A05978900 R.,10-OHM,2W				
7571,572	⚠ 9A05979000 R.,4.7-OHM,2W				
7901,902	△ 9A05896900 R.,12K-OHM,1/2W				
3916,917	△ 9A05979200 R.,1.5-OHM,1W				
R921	△ 9A05978900 R.,10-OHM,2W				
SP01	9A05987200 TERMINAL, SPEAKER				
/R51,52	9A05979600 VR.,SEMI FIXED				

SUB PCB ASSY

Ref. No.	Part No.	Description
	9A05985000	SUB PCB ASS'Y
	9A05987300	PCB, SUB
D101	9A05194300	LED,SPR39MVW3
D301-305	9A01390500	DIODE,1N4148MT
D306-309	9A05900300	LED, LTF02T085
D310-313	9A05890300	LED, YCF02T085
D314		LED, VCF06T085
D316,317		LED, YCF02T085
D318		LED,342MCF02T085 GRN
D321,322		DIODE,1N4148MT
Door		
D323	9A01390600	,
D324,325		
IC31		•
IC32		I.C RE5VA30CC
Q304-308	9A03745200	TR., KVTKSR2206T
Q309	9A01387400	TR,KSA733CYT
Q310		TR,KSC945CYT
Q313		TR,KSA733CYT
Q314-318		TR.KSC945CYT
SW31-35	9A04882500	
	J. 10 1002000.	011,1701
X301	9A05975800	RESONATOR,CERAMIC